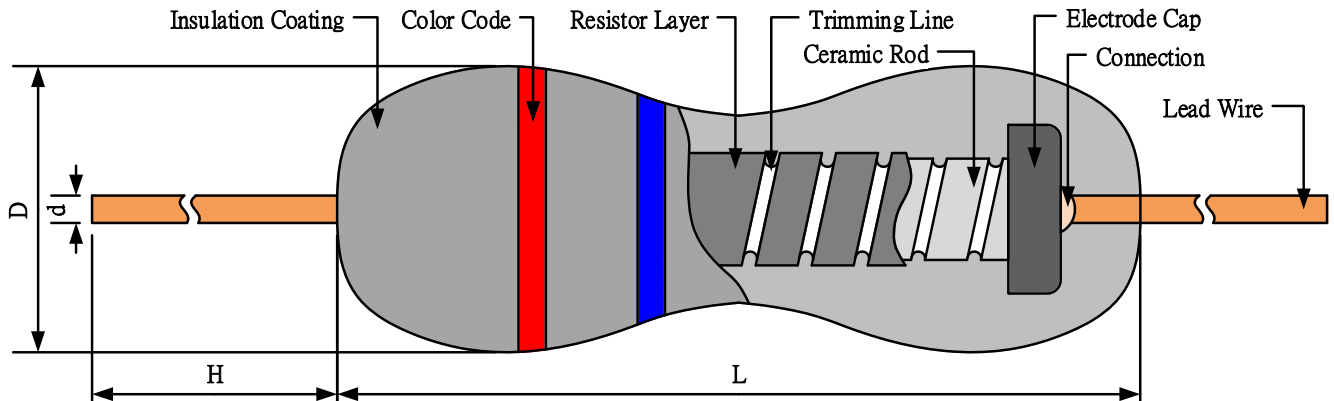


- Superior quality fusible resistors which are flameproof during operation  
These resistors fuse in less than 30seconds at 16 times rated power



**DIMENSIONS**

STYLE		DIMENSIONS(mm)				LIMITING ELEMENT VOLTAGE		RESISTANCE
Normal	Miniature	L	D	H	d	Normal	Miniature	
1/4W	1/2WS	6.3±0.5	2.3±0.3	28±3.0	0.55±0.03	200V	250V	0Ω1~1KΩ
1/3W	0.6W	6.3±0.5	2.3±0.3	28±3.0	0.55±0.03	200V	250V	0Ω1~1KΩ
1/2W	1WS	9.0±0.5	3.2±0.5	26±3.0	0.65±0.03	250V	300V	0Ω1~1KΩ
1W	2WS	11.5±1.0	4.5±0.5	35±3.0	0.78±0.03	300V	350V	0Ω1~1KΩ
2W	3WS	15.5±1.0	5.0±0.5	32±3.0	0.78±0.03	350V	400V	0Ω1~1KΩ

● **RATINGS AND CHARACTERISTICS**

ITEMS	SPECIFICATION LIMITS
TEMPERATURE COEFFICIENT	±350ppm
SHORT TIME OVERLOAD	±(2%+0.05Ω)
INSULATION RESISTANCE MIN DRY	1000MΩ
LOAD LIFE	±(5%+0.05Ω)
TERMINAL STRENGTH	Tensile: ≥2.5kg
SOLDERABILITY	95% min overage
DIELECTRIC WITHSTANDING VOLTAGE	≥ 500V
OPERETING TEMPERATURE RANGE	-40°C TO +155°C
TOLARANCE	±5%
SELECTION SERIES	E-24
WORKIKNG VOLTAGE	$\sqrt{P \times R}$ at 70°C

● **MOUNTING**

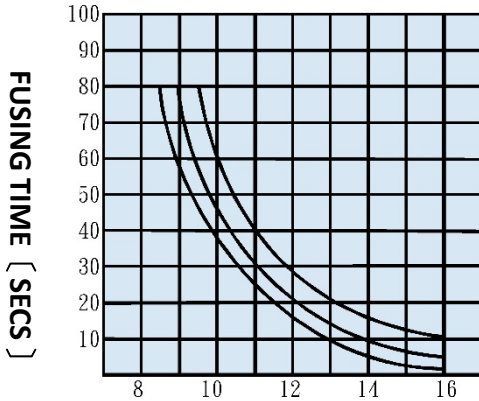
The resistors are suitable for processing on automatic insertion equipment and cutting and bending machines

● **MARKING**

The resistors are marked with a 4 colors band code indicating the value and a fifth BLACK band denoting a fusible RESISTORS.

The reduced size use gold color band instead of the fifth BLACK band. FUSING CHARACTERISTICS

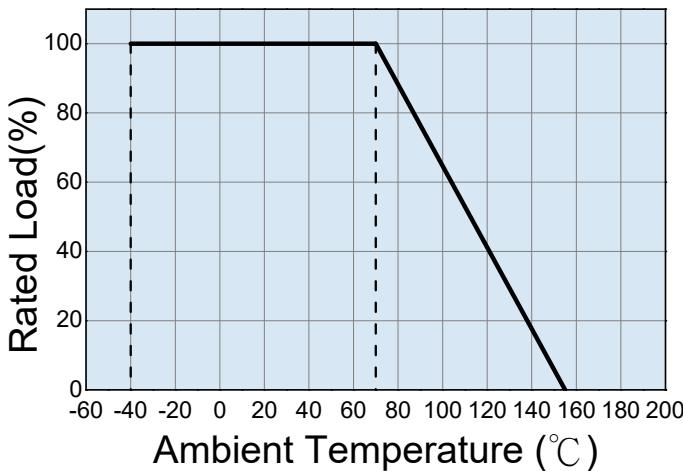
● FUSING CHARACTERISTICS



TYPE		MAGNIFICATION OF ROWER RATING			FUSING TIME
		X 30	X 25	X 16	
1/4W	1/2WS	$\leq 0\Omega 1$	0 $\Omega$ 47~0 $\Omega$ 91	1 $\Omega$ ~1K	60SEC MAX
1/3W	0.6W	$\leq 0\Omega 1$	0 $\Omega$ 47~0 $\Omega$ 91	1 $\Omega$ ~1K	
1/2W	1WS	$\leq 0\Omega 1$	0 $\Omega$ 33~1 $\Omega$ 2	1 $\Omega$ 2~1K	
1W	2WS	$\leq 0\Omega 1$	0 $\Omega$ 33~1 $\Omega$ 2	1 $\Omega$ 2~1K	
2W	3WS	$\leq 0\Omega 1$	0 $\Omega$ 33~1 $\Omega$ 2	1 $\Omega$ 2~1K	

● Power derating curve

● POWER GRAPH



● Technology and suggested application

The resistive element comprises a resistive film sputtered onto a ceramic element.

Metal end caps are force fitted to the element prior to spiralling.

Tinned copper lead wires are welded to the end caps and the components are than coated with four layers of a flameproof cement.

All resistors are tested for value and tolerance.

● Resistor body color :Grey

● PART NUMBER:

FRN	1/4W	10R	J	TB
↓	↓	↓	↓	↓
Type	Power rating	Resistance	Tolerance	Packaging
FRN   Flame Proof Fusible	1/4W   1/2Ws 1/3W   0.6W 1/2W   1/Ws 1W   2Ws 2W   3Ws	1R   1 $\Omega$ 10R   10 $\Omega$ 100R   100 $\Omega$ 1K   1K $\Omega$	G   $\pm 2\%$ J   $\pm 5\%$	TB   Taping Box TR   Taping Reel BU   Bulk F   F-TYPE M   M-TYPE PANA   PANA